## EMERGENCUES

## U.S. Army Engineers in World War I

1st Engineers, 1st Division, test a bridge in Gondrecourt, France, January 1918.



First ponton bridge across the Marne River, July 20, 1918.



Company E, 21st Engineers, operates a train near Ménil-la-Tour, Toul sector, France, March 1918.



he Army Corps of Engineers was called upon during World War I to provide a much more diverse range of military services than had ever before been required. Not only did the engineers provide American combat divisions with the officers and men to staff the large 1,660-man engineer regiments that were part of each Army combat division, but they also built the port facilities, roads and railroads needed to bring essential war materiel to the front, harvested timber for military construction, employed searchlights in anti-aircraft defense, organized the first U.S. Army tank units, and developed chemical warfare munitions and defensive equipment. So important were these last pursuits that in 1918 a separate Tank Corps and a Chemical Warfare Service were created in the Army, the latter headed by an engineer officer.

The U.S. Army engineers who served in World War I brought with them varied amounts of experience with the military. Most senior engineer officers were graduates of the U.S. Military Academy and had previously served with U.S. Army

units abroad, primarily in Cuba or the Philippines. A few of them had accompanied General John Pershing in his expedition to Northern Mexico in 1916-17 that had unsuccessfully attempted to capture the Mexican revolutionary Pancho Villa after his raid on Columbus. New Mexico. Some engineer commanders had been civilian engineers who were members of the National Guard or Officers' Reserve Corps Engineer units organized a few years before the United States' entry into the war. But most of the 240,000 engineers who served in Europe during the war had no prior record of military service.

The British and French governments made the arrival of American engineers in France their top priority after the United States declared war on April 6, 1917. Thus, by the end of August 1917, nine newly organized engineer railway regiments, together with the engineer regiment of the 1st Division, had crossed the Atlantic and arrived in France. Several of the railway regiments were assigned to British or French military formations pending the arrival of larger numbers of American com-



bat troops in the summer and autumn of 1918. It was while serving with the British near the village of Gouzeaucourt, southwest of Cambrai, France, on September 5, 1917. that Sergeant Matthew Calderwood and Private William Branigan of the 11th Engineers were wounded by artillery fire, thereby becoming the first casualties in any U.S. Army unit serving at the front. When the Germans in late November 1917 launched a counteroffensive to regain territory they had just lost to the British near Cambrai, the men of the 11th Engineers abandoned their railway work and assisted the British to construct

new defensive positions which stopped the German advance.

During 1918 U.S. Army engineers served in combat from the Vosges Mountains near the Swiss border north to Oudenaarde, Belgium. One battalion of the 310th Engineers even served in the Murmansk area of Northern Russia in a mission designed to assist Czech troops to rejoin the fighting on the Western front after Soviet Russia had left the war in March 1918. Most of this combat service consisted of the construction of bridges, roads and narrow-gauge (60 cm) railroads at or immediately behind the front, but engineer units also engaged in direct combat. Noteworthy among this combat service was the action of two companies of the 6th Engineers who ceased their construction of heavy steel bridges to join British and Canadian forces in front-line trenches where they together successfully defended Amiens from a heavy German assault in March and April 1918. These two engineer companies suffered a total of 77 casualties. During June and July 1918, troops of the 2d Engineers fought as infantry in their division's bitterly contested capture of the Belleau Woods and the nearby village of Vaux in the Aisne-Marne campaign. A battalion of the 1st Engineers fought as infantry in

the capture of Hill 269 in the Romagne Heights along the Hindenburg Line on October 8, 1918. It was for his action during this fighting that engineer Sergeant Wilbur E. Colyer of South Ozone, New York, was awarded the Medal of Honor. Colyer volunteered to locate a group of German machine-gun nests that was blocking the American advance. He used a captured

three ponton boats supporting the bridge, engineer Sergeant Eugene Walker, Corporal Robert Crawford and Privates Noah Gump, John Hoggle and Stanley Murnane jumped into the icy river and held up the deck of the bridge until replacement pontons could be launched and installed. These enlisted men were also awarded the Distinguished Service Cross. This



107th Engineers build a bridge in Cierges, France, August 1918.

German grenade to kill one enemy machine-gunner, turned his machine gun against the other enemy nests, and silenced each of them.

Other U.S. Army engineers won personal recognition for their actions in bridging the Meuse River. Major William Hoge, Jr., a West Pointer serving with the 7th Engineers, 5th Division, won a Distinguished Service Cross for his heroism in reconnoitering a site for a ponton bridge across that welldefended waterway north of Brieulles, France. Hoge selected the bridge site during the daylight hours of November 4, 1918, while under enemy observation and artillery fire, and he directed the construction of the bridge that night. After German artillerists destroyed



French officers train

American troops.

2d Engineers in France, 1918 During World War I, the 2d Engineer Regiment of the 2d "Indian Head" Infantry Division, commanded successively by Colonels James F. McIndoe and William A. Mitchell, was considered one of the best regiments in the American Expeditionary Forces (AEF) in France. Because of its bloody engagements at Belleau Woods, Château Thierry, Soissons and Meuse-Argonne, the division's infantry units sustained the highest percentage of major casualties to its strength among all AEF unitsits 30.38 percent casualty rate just edging the 30.08 percentage of the "Big Red 1," 1st Infantry Di-

vision. The 2d Engineers, more-

casualties with 12.73 percent, by far the highest of any engineer

unit. The reasons were simple-

an engineer's war, cutting

barbed wire entanglements,

putting them up, digging dug-

the trench war was preeminently

over, stood 15th in the list of

Maintaining High Standards: The

outs, machine gun positions and trenches and all too often fighting as infantry.

Throughout its time in combat the regiment maintained high morale and unexcelled performance in all its assignments. An unnamed American general of-

ficer said that "the 2d Engineers is the best regiment I ever saw . . . The regiment has assisted the artillery, has helped the tanks, built railroads, manned machine guns and fought time after time as infantry. That regiment can do anything." One reason for its excellent performance was the high standards its officers and men required of themselves and each other. These standards applied throughout the

regiment and were vigorously en-

forced.

Company D, 11th Engineers, builds a road near the Aire River.



U.S. Army tractor negotiates a steep grade on the Rhine at Coblenz, Germany.



bridge was one of 38 constructed by U.S. Army Engineers during the critical Meuse-Argonne offensive, which ended with the German military collapse.

U.S. Army engineers also made essential contributions to ultimate victory well behind the front lines. The forestry troops of the 20th Engineers, the U.S. Army's largest regiment, produced roughly 200 million feet of lumber in France, together with some three million standard-gauge railroad ties and one million narrow-gauge ties. American troops, under the technical supervision of Army engineers, used this lumber in the construction of new and expanded port facilities for American ships, including berths for deep-draft vessels at Brest that were the only ones available to U.S. vessels; storage depots containing more than 15 million square feet of covered storage space; new hospitals containing more than 140,000 beds; and barracks capable of housing 742,000 men. Engineer troops constructed 950 miles of standard-gauge rail lines, primarily at docks and storage yards; water supply facilities at several French ports and communications centers; and 90 miles of new roads. During the war U.S. Army engineers drew and printed maps, conducted geological studies with an eve to underground water supplies, installed and operated electrical lines and mechanical equipment, and experimented with the use of tractors and trailers for hauling ponton bridging equipment in the absence of sufficient animals. American engineers also operated seven cement plants in France. These varied facilities permitted the U.S. Army to field and support a force of nearly two million men in France within 20 months of the nation's entry into the war.